In re application of: McMahon et al.

Application No.: 10/588,840

REMARKS

The Pending Claims

Currently pending are claims 11-13, 15-17, 19-22 and 23-29 directed to a plant nutrient reduction composition. Reconsideration of the pending claims is respectfully requested.

Summary of the Office Action

The Office Action rejects claims 11-25 under 35 USC 112, 2nd paragraph as being indefinite for using the term "system" in the preamble. Applicants have amended the preamble to replace the term "system" with the term "composition". Thus, withdrawal of the rejection is respectfully requested.

Claims 11-25 are rejected under 35 U.S.C. 102(b) as being anticipated by US6,228,806 (Mehta) and under 35 U.S.C. 103(a) as obvious over Mehta in view of JP 10248386 (Miyazaki) and Xu et al. (Editors, "Nature Farming and Microbial Applications"...).

Discussion of the Claim Amendments

The claims have been amended to point out more particularly and claim more distinctly the subject matter of the invention. Specifically, claim 1 has been amended to indicate that the amount of phosphorus present in the N:P:K ratio is zero (0) and to include the limitations that the microorganisms are selected from the group consisting of clostridium pasteurianum, Rhodopseudomonas capsula, Bacillus megaterium, Bacillus subtilis and combinations thereof and said microorganisms being encapsulated in a watersoluble coating in the form of microcapsules. Claims 14, 18, and 23 have been cancelled. Support for the amendments can be found on at least page 8, lines 9-22 and page 9, lines 10-19 of the application. The page and line number correspond to the International Publication Number WO 2005/077861 publication of the application. Accordingly, no new subject matter has been added to the originally filed specification.

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Discussion of the Prior Art Rejections

To support a claim rejection by anticipation, a single prior art reference must teach every limitation of the rejected claim. See, e.g., M.P.E.P. § 2131. Regarding the Mehta patent, Mehta does not disclose a N:P:K ratio where the amount of phosphorus is zero. In addition, Mehta does not disclose that the amount of inorganic fertilizer used alone to achieve a certain amount of plant growth can be reduced by 25 wt. % to achieve a comparable amount of plant growth if the inorganic fertilizer is enhanced with the enumerated microorganisms. Mehta does not disclose that the amount of inorganic fertilizer used alone to achieve a certain level of nitrogen, phosphorus, or potassium in a plant can be reduced by 25 wt. % to achieve a comparable level of nitrogen, phosphorus, or potassium nor does Mehta disclose that the residual levels of nitrogen, phosphorus, or potassium in the soil is substantially less if microbially enhanced inorganic fertilizer is used even if the amount of microbially enhanced inorganic fertilizer is 25 wt. % less that the amount of nonmicrobially enhanced inorganic fertilizer.

To reject a claim as obvious, the references as combined must teach or suggest every limitation of the rejected claim. See, e.g., M.P.E.P. § 2143. Moreover, to modify a reference to support an obviousness rejection, there must be a suggestion or motivation to make that modification. See, e.g., M.P.E.P. § 2143. The US Supreme Court in KSR International Co. v. Teleflex Inc. et al. 127 S.Ct. 1727 (2007), stated that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." The KSR court also stated that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art."

Applicants submit that the Mehta, Xu and Miyazaki do not disclose the use of encapsulated bacteria as claimed by Applicants nor the use of the specific microbes claimed by Applicants to support the growth and replication of the bacteria. Mehta, Xu and Miyazaki do not disclose a N:P:K ratio where the amount of phosphorus is zero as recited in claims 11, 15 and 20. Furthermore, Mehta, Xu and Miyazaki do not disclose

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the specific microorganisms recited in claim 11 or that the microorganisms are encapsulated in a water-soluble coating in the form of a microcapsule as recited in claims 11, 15 and 20. Therefore, Applicants submit that no rational reason why one of ordinary skill in the art would make the suggested combination has been articulated.

Claims dependent upon a claim that is not anticipated by a reference cannot be rejected under 35 U.S.C. § 102(b) and claims dependent upon a claim that is not obvious cannot be rejected under 35 U.S.C. § 103. See, e.g., RCA Corp. v. Applied Digital Data Systems, 221 U.S.P.Q. 385 (Fed. Cir. 1984) and In re Fine, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Therefore, because claims 2-15 and 17 are all dependent directly or indirectly from allowable independent claim 1, these dependent claims should likewise be allowable.

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CONCLUSION

If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney. An early and favorable consideration of this Response is earnestly and respectfully solicited.

In the unlikely event that the Patent Office determines that an extension and/or other relief is required as a result of this response, Applicants petition for any required relief including extensions of time and authorize the Assistant Commissioner to charge the cost of such petitions and/or other fees due to Deposit Account No. 03-2270. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

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